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THIRTY-NINTH

Annual Report

TO THE

Bath Urban Sanitary Authority

BY THE

MEDICAL OFFICER OF HEALTH.

Statistics is the bedrock of Sanitation

BATH :
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1905.

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BATH URBAN SANITARY AUTHORITY.

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Councillor B. John.

HOUSING OF THE WORKING CLASSES COMMITTEE

Meets on last Friday in each Month at 11.30 a.m.

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Councillor G. F. Powell.

COUNCILLORS:

W. H. Bright
W. F. Gould
J. Howard
F. G. Isaacs
R. W. Kirkus
J. W. Knight
M. St. John Maule
W. H. Sealy
H. J. Thomas.

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Meeting every alternate Monday at 11 a.m.

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Alderman J. Rubie.

ALDERMEN:

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F. G. Farwell, J.P.
E. E. Phillips, J.P., M.R.C.S.

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SUB-COMMITTEES

Appointed by the Sanitary Committee.

STATUTORY HOSPITAL MANAGEMENT.

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SUB-SANITARY, ABATTOIRS, DISINFECTOR & MAPPING.

Alderman F. G. Farwell, J.P., Chairman.

ALDERMEN:

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STAFF.

Inspector of Nuisances—
Inspector of Canal Boats.
Inspector under the Food and Drugs Acts.
W. A. Craven.

Certificates of Royal Sanitary Institute, as Inspector of Nuisances and as Meat Inspector.

Assistant Inspector of Nuisances—
Inspector of Tenement Houses.
Inspector of Dairies, Cowsheds and Milkshops.
Clerk to the Statutory Hospital Management Committee.
F. W. Kelway.

Certificates of Royal Sanitary Institute, qualifying for Inspector of Nuisances and as Meat Inspector.

General Assistant and Clerk—Silas Hawkins.

Office Boy—Harold Burt.

Contractor for Disinfecting—
William Hayman, 30, Upper Wells Road.

Contractor for Ambulance—
Sambourne Weeks, 24, Upper Borough Walls.

Medical Officer of Health—
W. H. Symons, M.D. (Brux.), M.R.C.S., L.R.C.P., F.I.C.
Diplomate in Public Health, University of Oxford.
Fellow of the Royal Meteorological Society.

Telephone Numbers: Office, 124; Hospital, 198; Dr. Field, 236.

Statistics is the bedrock of Sanitation.

SUMMARY OF STATISTICS.
City and County Borough of BATH.
Health Resort & Chief Town of Somerset.

Situation—Latitude 51° 23′ N. ; Longitude 2° 21′ W.

Elevation—Varies from 50 feet above sea level on the lower banks of the Bath Avon to about 550 feet on either side, the hills rising to about 750 feet not far from the City.

Mean Elevation –285 feet above sea level.

Geological Formation—Oolitic clays, limestones and sands.

Rainfall—Average of 35 years, 1866-1900, 30·79 inches annually. 1901, 26·41 ; 1902, 23·40 ; 1903, 42·57 ; 1904, 25·02 inches.

Water—Constant Service, Corporation Reservoirs, Moderately hard, pure spring water. Average amount, 22 gallons per head.

Sewage disposal almost exclusively by water carriage.

House refuse removed and cremated by the Sanitary Authority.

Area of the Borough—3,338 statute acres land, 44 acres water.

Population—1901 Census, 49,839 ; Estimated 1904, 49,800.

Density of Population—Per acre, 14·9 ; per inhabited house, 5·3.

Number of Inhabited Houses—Census, 1891, 8,933 ;
" " " Census, 1901, 9,323 ;

Number of Occupied Houses—Census, 1901, 9,804 ;
" " " Rate-book, 1904, 10,043.

Assessable Value, October, 1904, £319,650.

Rateable Value. £322,144.

Rates–District Rate, 3/4 ; Poor-rate, 2/11 ; Total, 6/3 per £1.

Marriages Registered, 434 or 17·4 persons per 1,000 population.

Birth-rate—Average, 1891-1900, 20 ; 1904, 20·8 per 1,000.

Death-rate–Average, 1891-1900, 18·58.

Crude Death-rate, 1904, 16·2 ; Nett Death-rate, 14·8 per 1,000.

Recorded Death-rate reduced to standard age and sex for comparison with other districts 13·3 per 1,000.

Comparative Mortality Figure, 821.

Death-rate from seven principal "zymotic diseases," 0·90.

Infantile Mortality—111 per 1,000 Births.

Deaths under 5 years of age, 155 ; or 3·1 per 1,000 of all ages.

Deaths between 5 and 60 years of age, 227 ; or 4·5 per 1,000 of all ages.

Deaths over 60 years of age, 356 ; or 7·1 per 1,000 of all ages.

Deaths from Phthisis, 45, or 0·92 per 1,000 population.

To HIS WORSHIP THE MAYOR, and to the ALDERMEN, and COUNCILLORS of the CITY OF BATH.

Gentlemen,

I have the honour of submitting to you the Thirty-Ninth Annual Report on the Sanitary Condition of Bath, counting from the first printed Report of a Medical Officer of Health, or the Ninth counting only those which I have personally made.

The Death-rate for the year 1904 is lower than for any previous year except 1903. Including all deaths registered in Bath, 75 of which were deaths of persons brought into Bath for treatment in public institutions, the Crude Death-rate was 16·6 per 1,000. Excluding deaths of non-residents the Nett Death-rate was 14·8 per 1,000. The Nett Death-rate multiplied by the factor for correction 0·9 gives the corrected Death-rate 13·3.

The factor for correction is calculated by comparing the English Death-rate for 1891-1900 with the Death-rate which would obtain if there were the same proportion of old and young people in England as in Bath. It is the Corrected Death-rate which can be most fairly compared with the English Death-rate for 1904, which was 16·2 per 1,000, giving a comparative mortality figure of 821 for Bath to 1,000 for England. For Rural England the Death-rate was 15·3, for 76 great towns 17·2, for 142 smaller towns 15·6 per 1,000.

The Birth-rate for the year is 20·8 per 1,000, which is slightly above the average of the preceding ten years. The number of births registered was 1,034, which compares favourably with 992, the average of the three previous years or with the average 1,029 of the ten years 1894-1903. This upward tendency of the Birth-rate is small but noteworthy and confirms me in the opinion that the population of Bath is not decreasing as it was between the years 1891-1900. The large number of convenient houses now built in Bath appears to be checking the migration to the suburbs.

For the purpose of estimating the Death-rate, I take the population of Bath as 49,800, I believe this to be a low estimate. The Registrar General following his usual rule, assuming the decrease to continue, estimates the population of Bath to the middle of 1904 as 49,318, which of course gives an apparently higher Death-rate.

The number of deaths under five years of age and above eighty-five years of age was above the average of the three preceding years, at all other age periods the number of deaths was below this average. This excessive number of deaths at the two extremes of life was probably in no little measure due to meteorological conditions. The following table gives the number of deaths at each age period compared with the English standard.

Deaths from all causes during 1904 at twelve groups of ages compared with the English standard for 1891-1900 for a similar number of persons of the same ages.

Age-period.	Males.		Females.		Age period.
Years.	English Standard.	Actual Deaths.	Actual Deaths.	English Standard.	Years.
Under 5	129	85	70	108	Under 5
5 to 10	9	7	2	9	5 to 10
10 to 15	5	2	—	6	10 to 15
15 to 20	7	3	2	11	15 to 20
20 to 25	9	2	4	14	20 to 25
25 to 35	20	17	19	29	25 to 35
35 to 45	28	20	31	37	35 to 45
45 to 55	37	40	33	47	45 to 55
55 to 65	52	47	51	73	55 to 65
65 to 75	65	55	79	107	65 to 75
75 to 85	54	31	80	100	75 to 85
Over 85	15	19	35	33	Over 85
All ages	430	328	410	574	All ages

The English standard number is obtained by multiplying the Mean Annual Death-rate into each age group of the population separately. Thus the Mean Annual Death-rate for males under five years of age during the ten years 1891-1900, was 62.7 per 1,000 males living at that age in England. According to the Census of 1901 there were in Bath 2,058 males under five years of age, at English Standard Death-rate 129 of these would die every year; the observed number of deaths in Bath for 1904 was 85, for 1903 it was

70, for 1902 the number of males under 5 years of age who died was 97. The conditions of life in Bath are obviously more favourable to child life than they can possibly be in manufacturing districts and to a lesser extent this is true of all ages, the total number of actual deaths being 738 instead of 1,004, which it would be if the English Death-rates obtained in Bath. This last number gives us a standard hypothetical death-rate of 20·17, the English Death-rate for 1891-1900 was 18·2 ; if the proportion of old and young people had been the same throughout England as in Bath, the English Death-rate would have been 20·17, the observed English Death-rate divided by the death-rate calculated to the age groups of any population gives "Factor for correction" which for Bath is 0·900.

The Nett Death-rate multiplied by this factor is the Corrected Death-rate, 13·3 per 1,000.

INFANTILE MORTALITY.

Infantile mortality is recorded as deaths under one year of age per 1,000 births, it is therefore independent of the general age constitution and total number of population, it is the Death-rate of a particular age group of which an Annual Census can be made from returns of the local Registrars. Infantile Mortality is a far better indicator of the sanitary and social welfare of a district that the so-called "Zymotic Death-rate" or the Death-rate from all causes. We should expect Bath to have a low Infantile Mortality, much below the average for England, and comparison would be unfair, but it is interesting to compare Bath of one period with Bath of another and pleasing to see that the average Infantile Mortality of the past four years was 102 per 1,000 births as compared with an average of 130 for the preceding four years, the following give details for 1904 and ten previous years.

INFANTILE MORTALITY.

Deaths under one year of age per 1,000 Births.

Year	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895	1894
Mortality	111	85	106	104	126	131	136	128	128	134	131

For 1904 the Infant Mortality in England and Wales was 146, for Rural England and Wales 125, for 76 great towns 160, and for 142 smaller towns 154 Although our Infant Mortality is low comparatively, it can and will be still further reduced, there is no reason why so many children should die during the first year of life, except that they do not have a fair chance of living;

a systematic inquiry ought to be made concerning the cause of death in most cases and the Coroner's Court more frequently resorted to. We often get the birth and death certificates on the same day. A birth need not be registered for six weeks while a death must be registered within five days and before burial. The Registrar General has recently issued an Order permitting District Registrars to supply particulars concerning births, and not merely the number in each district ; the Sanitary Committee has sanctioned arrangements for getting these particulars and also for having a daily return of deaths instead of a weekly return. The daily return is a great advantage, we are able to offer advice and to disinfect much earlier than we otherwise could do after deaths from tuberculosis, etc., before the rooms have been re-occupied. Where necessary we can enforce Section 10, of the Infectious Disease (Prevention) Act, 1890, which prohibits the retention of a dead body in a house or room under some circumstances.

PREVENTABLE DISEASES.

Under this heading are classed those diseases which are theoretically preventable, and the prevention of which is chiefly a financial question. The plague, cholera, and typhus fever, under modern sanitary conditions can find no foothold in England. Enteric or typhoid fever, puerperal fever and smallpox are no longer endemic in every large town and our own records show how free a large city may be from these diseases. Tuberculosis or the white plague is being rapidly exterminated, although in all its forms it still claims 50,000 victims annually in England and Wales. Scarlet fever has become a mild disease, the Death-rate having been reduced 60 per cent in twenty years. Diphtheria continues unabated, probably many deaths formerly attributed to scarlet fever were really due to diphtheria, but I think that under an improved system of school management we may expect a considerable reduction in the mortality from diphtheria during the next few years. Infantile diarrhœa, measles, and whooping cough, are about as prevalent and fatal as they were twenty years ago, and the serious loss of life which these diseases cause is not commonly realised. Influenza is a disease of modern introduction, becoming a prominent factor in the English Death-rate in 1890, during which year it caused 4,523 deaths, and in 1891 16,686 deaths as against an average of 90 deaths for each of the seven preceding years. The following figures from the Registrar

General's Report for 1903 will serve to indicate the progress made in England and Wales. As regards smallpox the returns are abnormal, 1902 being an epidemic year, during the two preceding years there were 356 and 85 deaths respectively while in 1890 there were only 16 deaths registered in England and Wales as due to smallpox. The number of deaths from diarrhœa in 1903 was much below the average ; in 1901 30,161 such deaths were registered.

Number of Deaths from various Preventable Diseases.
England and Wales, 1883 and 1903, with Death-rates per million.

England and Wales.	1883		1903	
Preventable Diseases.	Deaths.	Death-rate per Million.		Deaths.
Smallpox	957	36	23	760
Typhus fever ...	877	33	2	69
Enteric or typhoid fever	6,078	228	100	3,347
Tubercular phthisis ...	50,053	1,880	1,213	40,132
Scarlet fever... ...	12,649	475	125	4,158
Diphtheria	4,218	158	182	6,077
Diarrhœa	10,325	613	551	18,099
Measles	9,329	350	274	9,150
Whooping Cough ...	10,471	393	285	9,522

The seven chief Epidemic Diseases caused 45 deaths in Bath during 1904, giving a Death-rate of 0·9 per 1,000, this is much below the average of England and Wales which was 1·94 per 1,000.

Measles caused four deaths, the average number of deaths from this disease in Bath is 12, the English average for the same population is 16. The years 1877, 1879, 1881, 1884, 1888, 1891, 1894, and 1902 were epidemic years, when from two to four times the average number of deaths occurred. Epidemics recur every three or four years, one epidemic year being missed between 1894 and 1902, but we had three years of full average instead of an epidemic year. It seems that as soon as there is sufficient material, *i.e.* children under five years of age who have not had measles, an epidemic occurs ; some persons say it is useless to try to prevent these epidemics and that it would be better to recognise measles as an endemic disease and by taking no precautions permit it to fall evenly year after year. Of course we cannot treat such propositions seriously, for every year a child is prevented from taking measles renders the child less likely to take the disease and very much less likely to suffer permanently from its effects. When we can get the public to regard measles as at least as serious as scarlet fever, we shall have made a great step towards preventing the spread of disease. We have a system of school notification for measles and whooping cough, but often the first notification I get includes 60 or 80 children as absent from school, and it is practically impossible for us to visit the homes and advise isolation ; we send leaflets to the parents and no doubt these do some good, but if we could hear of the first cases we might be able to localize the outbreak. The following is the record of deaths from measles for past years.

Year	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895	1894	1893
Deaths	4	1	42	—	4	7	16	11	9	1	50	—

Whooping Cough caused 15 deaths, which is slightly below the English standard number of deaths. On account of the distressful cough this disease is less likely than measles to escape notice, and so notwithstanding the prolonged duration of the illness we get fewer cases of whooping cough. All the fatal cases were under five years of age, nine being under one year, and out of the 10,000 children killed annually in England by whooping cough 97 per cent are under five years of age ; the advantage of trying to postpone the attack is therefore obvious. Our record is as follows :—

Year	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895	1894	1893
Deaths	15	4	11	10	9	3	14	15	1	21	37	12

Scarlet Fever. Thirty-six cases of scarlet fever were notified, this is the lowest number since notification became compulsory : there was no death from this cause either in Bath or among urban cases at the hospital. The previous records are :

Year	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895	1894	1893
Cases	36	137	166	126	88	57	67	194	141	79	110	319
Deaths	—	2	—	3	3	—	—	5	8	1	3	9

Diphtheria. Seventy-two cases were notified and there were ten deaths. This is above our average, the disease has been practically confined to one district and as I have made special reports on this outbreak I need not repeat the details. Of these cases 56 were removed to the Statutory Hospital : antitoxin was supplied free of charge to home nursed cases, and when I thought necessary swabs were taken and sent to the Bristol Clinical Research Laboratory. Three home-nursed cases, which would have been discharged within two or three weeks of notification, but for positive evidence of typical diphtheria bacilli, were kept under observation, isolated at home for a further period of two weeks when negative bacteriological results were obtained. Had these three cases been permitted to return to school earlier many children might have been infected. Diphtheria is a disease which is carried chiefly by persons who are not really " suffering " from the disease, they have produced their own antitoxin and become immune, but they may infect young children and others with a fatal result. It is only by bacteriological methods we can find out the "carriers" of disease. Diphtheria is from a text book point of view the best known disease, we know its cause—the diphtheria bacillus. We know it is spread by discharges from the mouth and nose and may be conveyed in food and by the lower animals, we also know its cure and prevention by antitoxin. We do not know the exact relationship of the diphtheria bacillus to other bacilli which closely resemble the virulent type and due weight must be given to clinical observations. Bacteriology is an excellent servant but a bad master.

Cases and deaths from diphtheria, 1893-1904.

Year	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895	1894	1893
Cases	72	22	57	45	44	34	42	67	73	52	53	48
Deaths	10	3	6	7	9	8	4	16	20	11	9	10

Enteric or Typhoid Fever. It is again my pleasing duty to be able to report the absence of this disease, which is the best evidence we can have of the purity of our water supply and general cleanliness of the City. Only two cases of typhoid fever were notified during the year, one of these was obviously acquired in London, the woman having only been in Bath a few days ; the second case was not a typical case of typhoid, the onset was somewhat sudden, there was no rash, on the fourteenth day a negative reaction was given for Widal's test : the man died on the twenty-third day of illness and death was registered as due to perforation of the bowel and typhoid fever. The following is our record :—

Year	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895	1894	1893
Cases	2	3	7	9	21	50	17	12	20	13	23	13
Deaths	1	2	1	2	4	0	3	3	5	3	3	3

Diarrhœa and Zymotic Enteritis caused 15 deaths. It is difficult to distinguish a disease which may be due to improper feeding with indigestible food, food which may be perfectly whole-some to older persons, from a disease which is caused by dirty food. In both diseases the principal symptom and the ultimate result may be the same, owing to the ignorance, carelessness or poverty of the persons having charge of the infants. This becomes more evident in warm dry weather when there is more chance of food becoming contaminated by dirty dust. If a death is registered as due to enteritis, that is inflammation of the bowels, it would not be classified among the zymotic diseases, but if the death were registered as due to zymotic enteritis it would be so classified ; it is therefore difficult to compare one year or one district with another, but although the socalled zymotic death-rates are not good standards for comparison, there can be no doubt that diarrhœa whether called enteritis or zymotic enteritis, is the most fatal of infantile diseases, causing from 14,000 to 30,000 deaths in England annually. In Bath deaths from diarrhœa are considerably below the average of England because we have few large factories employing female labour and comparatively a clean city, nevertheless we average twenty deaths a year, some of which might be prevented by instructing mothers how to feed their children, we try to do this by means of leaflets but a female Inspector could do much more in this direction. The following figures show how deaths from diarrhœa vary from year to year.

Year	1904	1903	1902	1901	1900	1899	1898	1897	1896
Deaths	15	7	14	17	21	37	31	13	28

Tuberculosis caused 60 deaths, 45 deaths being attributed to tuberculosis of the lungs, popularly called phthisis : these numbers are slightly larger than those of the two preceding years, but very different from the records of forty years ago, when over 200 deaths were registered annually in Bath as due to tubercular diseases. Our death-rate from these diseases is now considerably below the English average, and on the assumption that the average duration of the disease is from two to three years, there are probably at the present time about 150 persons in Bath suffering from tubercular disease, as against about double this number ten years ago. The number who die from year to year will vary with the presence or absence of minor infectious diseases, such as influenza and pneumonia, diseases which may cause only a passing inconvenience to a fairly sound person.

The notification of cases of phthisis was made permissible in Bath on November 24th, 1900, the same fees being paid by the Authority as for the other infectious diseases. Only 76 cases have been notified ; I have personally visited nearly all these cases, and have been able to persuade some to take advantage of the open-air treatment offered by the Board of Guardians. Many persons who would not otherwise care to receive poor law relief, will do so when it appears their only chance of recovery. Most of the cases notified to me are too far gone to be permanently restored to the ranks of workers by a few weeks' open-air treatment, but they are taught how to treat themselves and how to live without being centres of be infection. Compulsory notification is needed, but this disease might exempted from the Infectious Disease (Prevention) Act, and notification considered as confidential. Dr. Craddock, reporting to the Board of Guardians, states that since the open-air treatment was adopted at the Workhouse, October 15th, 1903, to present time, 67 cases have been admitted. Of these 10 had been discharged cured, 22 had left while under treatment, 14 are still under treatment, and 21 have died ; most of those who died were in a hopeless condition when admitted. The average cost of treatment is 15/- per week per head, and the average stay in the Infirmary 163 days for those who were cured : the average of all cases 60 days.

Winsley Sanatorium, concerning which particulars have been given in two previous reports, was opened for the reception of patients on December 16th. The two beds allotted to Bath were duly occupied.

Phthisis and other forms of tuberculosis.

Deaths, 1904, and previous years :—

Year	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895	1894	1893
Phthisis	45	42	38	64	54	69	59	64	61	73	76	85
		42			62			62			78	
Other Forms.	15	10	17	9	23	33	28	32	35			

WINSLEY SANATORIUM.

Rules for the Admission of Patients.

i. Only patients suffering from Pulmonary and Laryngeal Tuberculosis in the early stages, or where a reasonable prospect is afforded of marked alleviation or cure by treatment in the Sanatorium will be admitted.

ii. Patients will not be eligible for admission to the Sanatorium unless *bona fide* residents in one or other of the Counties of Somerset, Gloucester and Wilts.

iii. Only those persons who are not recipients of Poor Law relief, but who are unable to pay more than 15/- per week are eligible as patients.

iv. No patient will be admitted under 10 or over 60 years of age.

v. The admission of patients to the non-maintained beds will be considered by the Committee of Management strictly in the order in which they are received, but the Committee reserve power to decline any application if in their uncontrolled discretion they shall think fit, and they shall not be called upon to give any reason for so doing.

vi. No patients will be admitted without Certificates from his or her medical attendant and from a member of the Medical Consultative Board of the Sanatorium, in the forms hereinafter set forth, together with an Order from the Secretary.

vii. Patients who have not been nominated to maintained beds will be required to pay a sum not exceeding 10/- per week, which must be paid monthly in advance, the balance of such deposit to be refunded if the patient has for any cause other than misconduct to leave the Sanatorium before the completion of the term.

viii. Patients will, as a rule, be admitted for a period not exceeding 16 weeks, but this period may be curtailed by the Committee of Management if it is deemed advisable, or may be extended for a further period under special circumstances.

ix. All patients must conform to the Rules and Regulations of the Sanatorium. Any patient who persists in violating Rules, or is otherwise guilty of insubordination or gross misconduct, becomes liable to dismissal.

x. Travelling expenses shall be defrayed by the patient.

xi. Applications for admission must be made to the Secretary at the Offices of the Sanatorium, 84, Park Street, Bristol.

xii. All patients must provide themselves with articles of clothing in accordance with a list which will be forwarded by the Secretary before admissson, and all such articles are to be clearly marked with the patient's name.

Cerebral Hæmorrhage, Apoplexy.

Cerebral hæmorrhage, apoplexy and hemiplegia caused 42 deaths which is not an abnormal number for the population of Bath. It has recently been asserted that attacks of cerebral hæmorrhage are more common at times of high barometric pressure and may be prevented by taking suitable precautions at such times. I have been endeavouring to ascertain if there was any foundation for this statement but the deaths from apoplexy in Bath are too few to afford reliable statistics and the date of attack is only given in about 15 per cent. of the certificates. By the kindness of Dr. Davies I was able to examine the records for Bristol and to obtain copies of certificates for six years, 1899-1904. The combined populations numbered 371,000 in 1899 and 406,450 in 1904. The total number of deaths from cerebral hæmorrhage, etc., was 1575. The date of attack was stated in 299 certificates, in 70 per cent. death occurred within 7 days, and in 80 per cent. within one month of attack. Death resulted within 24 hours in 55 cases, the barometer being above the mean at the time of attack in 34 of these cases and below in 32, but the barometer is more often above than below the mean level. From an examination of the weekly and monthly death-rates from apoplexy, etc., in connection with the meteorological conditions I conclude that atmospheric conditions have no special influence in determining an attack of apoplexy. The death-rate from apoplexy varies from year to year and from season to season, directly as the general death-rate for persons above 65 years of age, February being the most fatal month and September the least so.

Cerebral Hæmorrhage mean monthly mortality per 100,000, Bath and Bristol, 1899-1904.

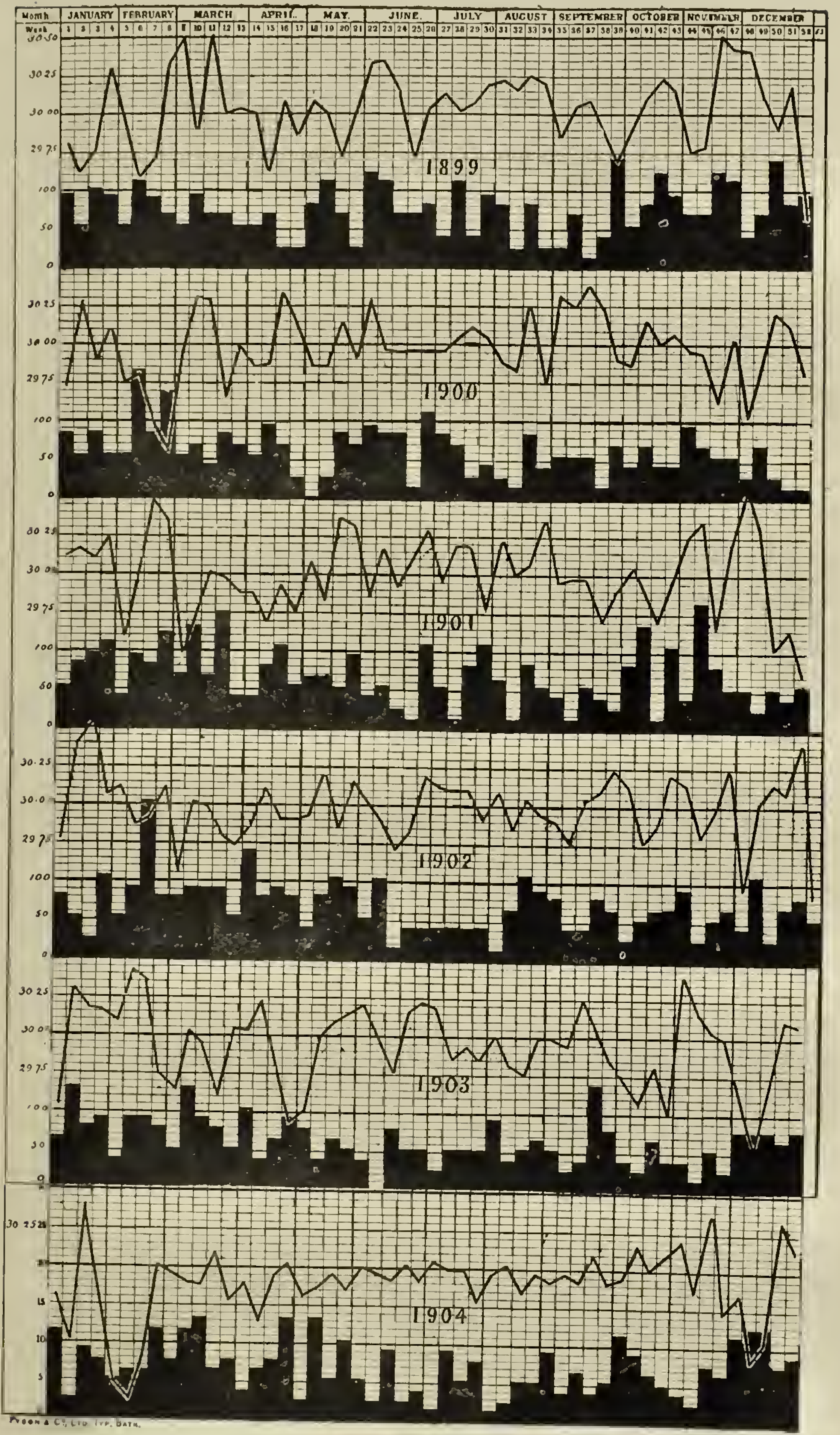
January	78	April	70	July ...	58	October	68
February	92	May	71	August ...	58	November	65
March	82	June	60	September	53	December	72

Mean annual death-rate 67, varying from 61 in 1902 to 78 in 1899.

The death-rate for February never fell below the mean annual death-rate, but the death-rate for December varied from 28 in 1900 to 105 in 1904 ; anti-cyclones were not more prevalent in months of high death-rates than at other times. The December with the low death-rate had an even temperature, while December 1904 was preceded by a frosty November and was exceedingly unsettled the first half of the month becoming anticyclonic on

Cerebral Hæmorrhage and Atmospheric Pressure,

Death-rates per 100,000, Average 9 a.m. pressure, Bath and Bristol.



Pyson & Co., Ltd. Typ. Bath.

the 18th. There were in the two Cities 23 deaths during the first half of the month and 13 during the second half. The death-rate for November last was slightly above the average and the deaths were evenly distributed throughout the month notwithstanding the variable weather.

The chart on page 17 shows the weekly death-rates in combined districts for six years, the death-rates are below the average of England and Wales.

Malignant Disease.

Malignant disease, cancer and sarcoma caused 62 deaths, this is about the average of the preceding ten years. The Registrar General has repeatedly shown that the crude rate of cancer mortality is misleading for comparative purposes, because of changes in the age constitution of the living. But if, instead of computing the mortality at all ages, we apply the deaths at ages above 35 years to the number then living we obtain the ratio at that stage of life in which cancer is most fatal ; and the result, duly corrected for age differences of the population, is fairly comparable, as between different periods, or as between different localities. For example the cancer death-rate in England and Wales as a whole for 1903 was 0·872, the crude cancer death-rate for the County of Somersetshire was 0·924, from which it would appear that persons were more liable to die of cancer in Somersetshire than elsewhere, but the cancer death-rates per 1,000 persons living above 35 years of age show that Somersetshire has a lower cancer death-rate than England and Wales, and for the period 1881—1890 there were only 13 counties with a lower cancer death-rate than Somersetshire. The following are the latest returns available :

Mean Annual Death-rates from Cancer per million living aged 35 years and upwards, corrected for age and sex constitution of population.

	1881-1890.	1891-1900.
England and Wales	1844	2316
Somersetshire	1732	2134

	Males		Females.	
	Average 1898-1902.	Year 1903.	Average 1898 1902.	Year 1903.
England and Wales	2,074	2,247	2,866	2,958
Urban Counties ...	2,160	2,357	2,991	3,101
Rural Counties ...	1,946	2,064	2,660	2,685

Dr. Tatham in the Registrar General's report, says "it would be obviously unsafe to assume that the place of a patient's residence immediately before death had been also the place of origin of his or her disease."

Applying the Urban Counties mortality from cancer at age groups, above 35 years of age, to the age groups of the population of Bath as enumerated in 1901, I find that the number of males dying from cancer would be 20, and the number of females 43, so that the deaths from cancer among residents of Bath for 1904 and ten preceding years has been under the average of the present rate of Urban Counties.

In other words, the Urban District Cancer Death-rate has come up to the standard of health resorts, which confirms me in the opinion that the apparent increase is largely due to increased facilities for correct diagnosis. Early recognition affords the best chance of curing the disease. No record is kept of the cures which result from the early recognition and surgical treatment of the disease or, singular as it may seem, there would probably be found to be most cures in those districts where there were most deaths, many cases and deaths in other districts escaping notice, being returned as due to some ill-defined cause.

The Midwives Act, 1902.

In last year's report I gave an epitome of the Midwives Act in so far as it relates to the duties of the Supervising Authority, these duties have now been extended by Rules made by the Central Midwives Board and approved by the Privy Council. The Rules give directions to Midwives concerning cleanliness, duties to patient, duties to child, and general directions as to when a registered medical practitioner is to be sent for and the records to be kept and notifications to be made.

NOTIFICATION. (1) **Deaths.**—In all cases in which the death of the mother or of the child occurs before the attendance of a registered medical practitioner the midwife shall, as soon as possible after death, notify the same to the local supervising authority.

(2) **Still-births.**—In all cases where a registered medical practitioner is not in attendance the midwife shall, as soon as possible after the occurrence of a still-birth, notify the same to the local supervising authority.

(3) **Puerperal Fever and other Infectious Diseases.**—These cases are included in the notice required when medical help is sent for.

A Midwife shall keep the following records :—

(*a*) A register of cases.

(*b*) A record of sending for medical help. The Midwife shall make two copies by means of transfer paper or otherwise, she shall preserve one of these copies for herself, and shall send the other by post to the local supervising authority within twelve hours.

The supervising authority shall make arrangements to secure a proper inspection of every midwife's case book, bag of appliances, etc., and, when thought necessary, an inspection of her place of residence, and an investigation of her mode of practice.

Only 17 women have given notice of their intention to practice in Bath, two of these cannot write and will be unable to keep their own records. In addition to these there are 27 women who have practised as midwives during the past year who had not up to April 1st given notice of intention to practise.

I hope that we may be able to arrange for the early notification of all births attended by midwives, so that we may give information concerning the care and feeding of infants ; at present we do not hear of a birth until perhaps five weeks have elapsed. It is estimated that more than half of all births are attended by midwives.

Elementary Schools.

The average number of children on the books of the Elementary Schools including the Blue Coat and Sutcliffe Industrial Schools, was 7,344, the average attendance 6,474, the per centage of attendance being 88·5 ; in 1901 the average number on the books was 6,967 and the average attendance 5,099. I am indebted to Mr. A. Neate for this information.

The increase in the number of children attending school is further evidence of an increasing population. I am glad to see the increased attendance is not due to a larger number of children under 5 years of age, these being 917 as compared with 964 in 1901. I think it unfortunate that any grant is paid for children under 5 years of age ; the restraint of school life and the work put upon the eyes and nervous system at so early an age cause permanent injury. Children who do not go to school until they are five or six years of age rapidly overtake and pass those of similar capabilities who begin school as babies of 3 years.

The following schools have been closed during the year on account of infectious disease :—

Oldfield Council Infants' School, January 22nd to February 8th, for whooping cough and measles.
St. Paul's Infants' School, May 5 to May 28. Whooping cough.
Lyncombe Council Infants' School, May 18 to 29. Diphtheria.

I am not an advocate for school closure as a routine measure. To be of any service in preventing disease, the school should be closed as soon as it became evident that several children had been exposed to infection, so as to avoid the second crop of cases, but school attendance would not be sensibly diminished, and the order to close might be regarded as unreasonable ; when the attendance has fallen 25 per cent. a closing order is often asked for, but the infected children mix freely in their play and at various Sunday schools and very little good is done by keeping them away from day school. The Infants' School is usually the department to which attention is first directed by reason of the diminished attendance or two or three deaths among the little scholars, but inquiry will often show that the disease first became prevalent in the schools attended by older children, which may be some distance from their home, the older children perhaps suffer so slightly from the disease as to be only absent from school for a few days: when a younger child carries the disease to the infants' school it rapidly becomes epidemic ; diphtheria is often propagated in this way.

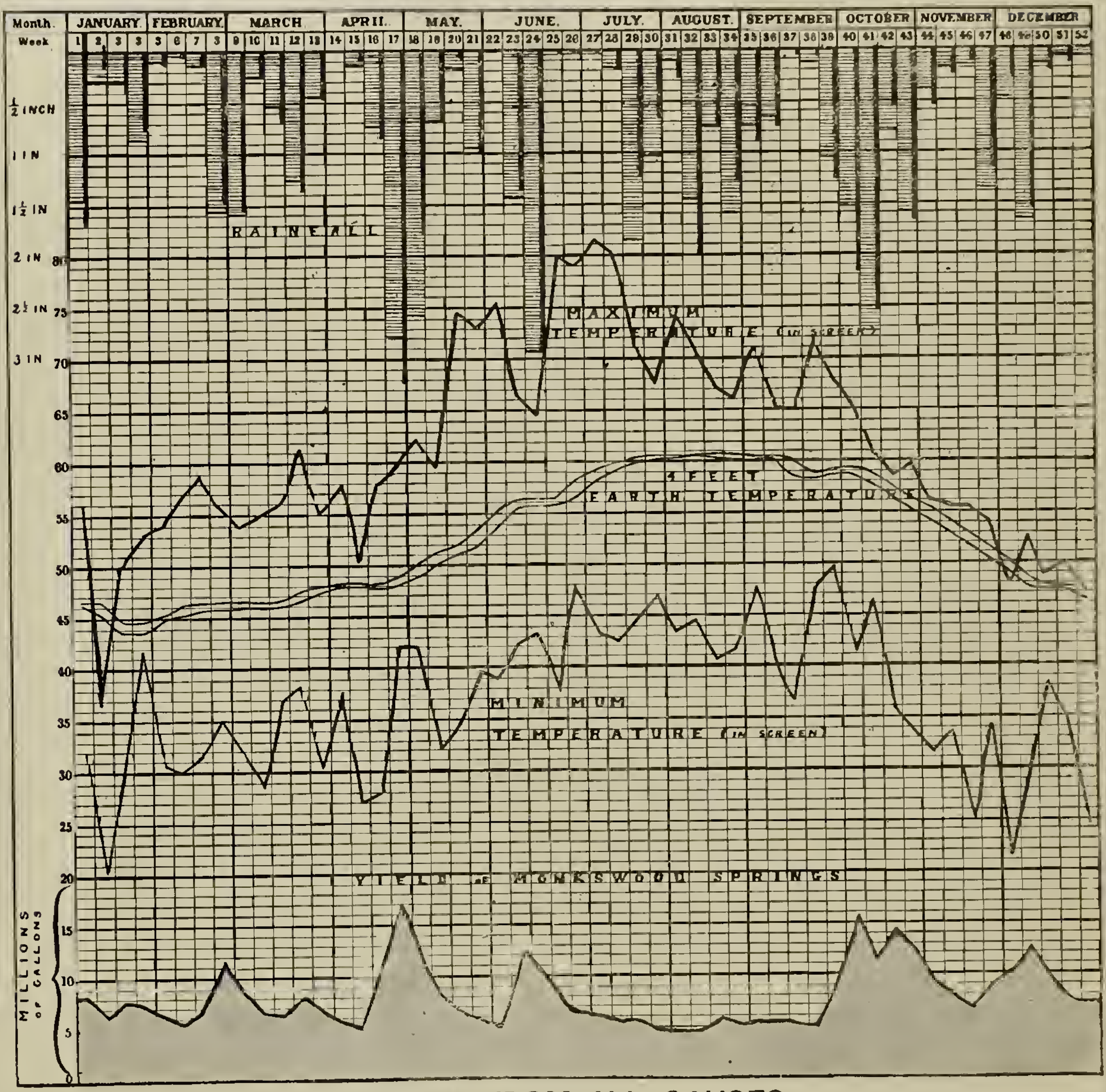
METEOROLOGY.

Meteorological Observations have been regularly made at the stations equipped by the Corporation and also at the Bath Royal Literary and Scientific Institution and at my own Observatory. We have again to thank Colonel Clutterbuck and Mr. W. P. Workman, B.Sc., for regularly sending the barograms from their aneroids at Box and Lansdown, also the various observers for the regularity of their work, and the Waterworks Engineer for information as to the rainfall of three stations and the yield of Monkswood Springs. The chart for this year (page 23) is very interesting when compared with that of 1903, which is reprinted.

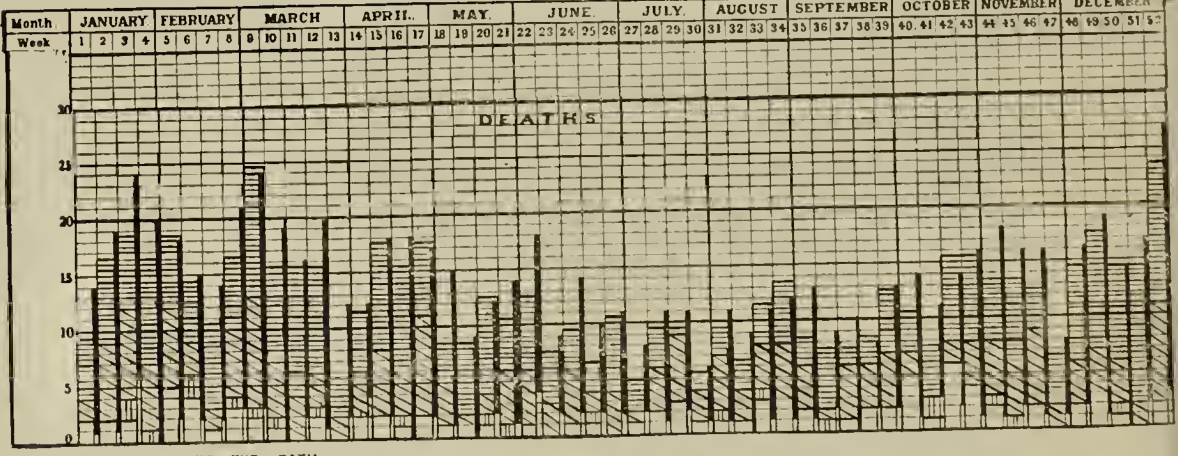
1903.

TEMPERATURE, RAINFALL, AND YIELD OF SPRINGS.

Rainfall in Bath—Shaded Lines. At Monkswood—Solid Line.



DEATHS FROM ALL CAUSES.



FYSON & CO. LTD. TYP., BATH

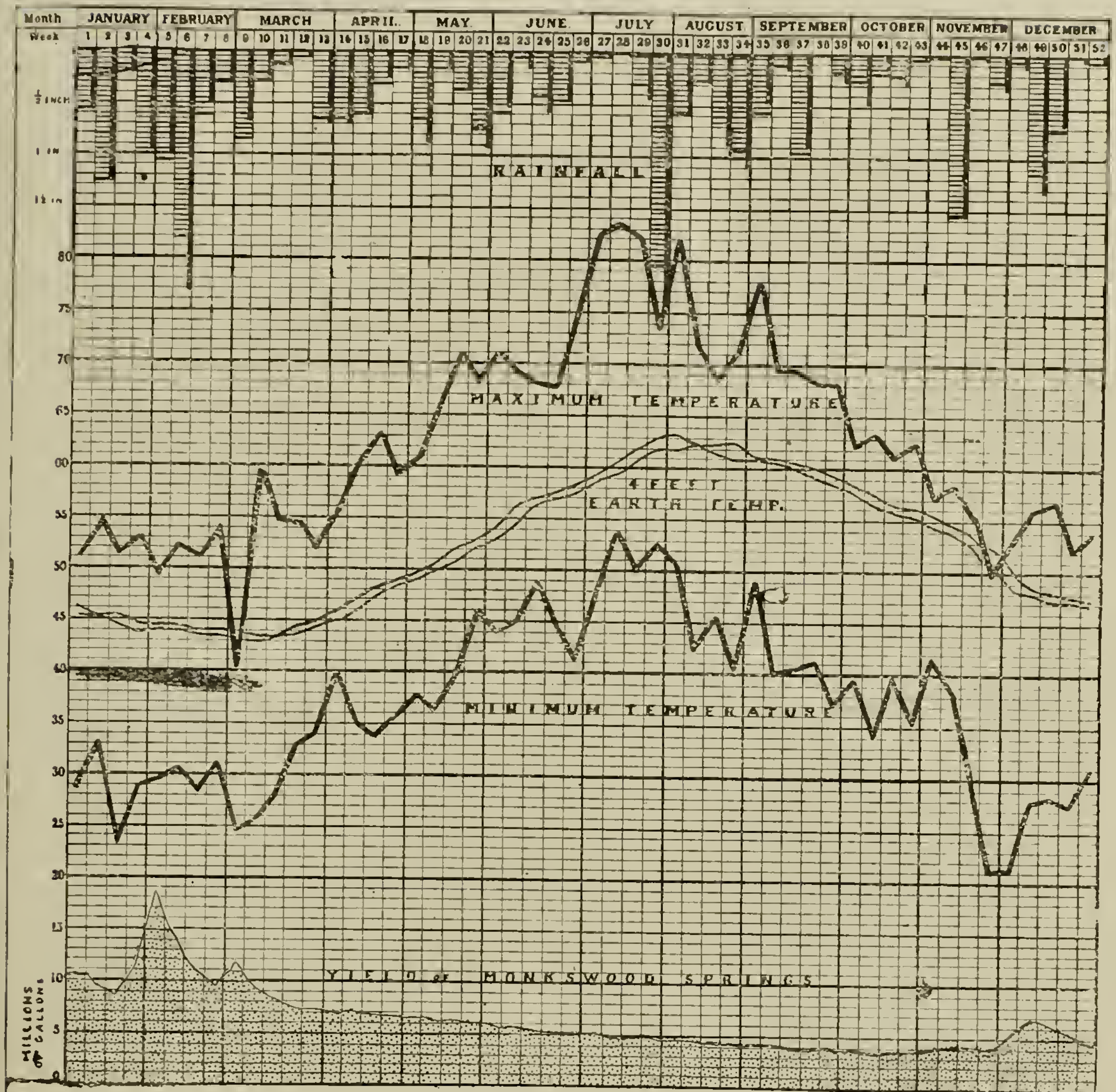
NOTES :—Total deaths registered each week shown by solid black line ; blank space base indicates deaths of non-resident.

Deaths of Residents actually occurring weekly shown by shaded lines in age periods under 1, 1-5, 5-60 and 60 years upwards

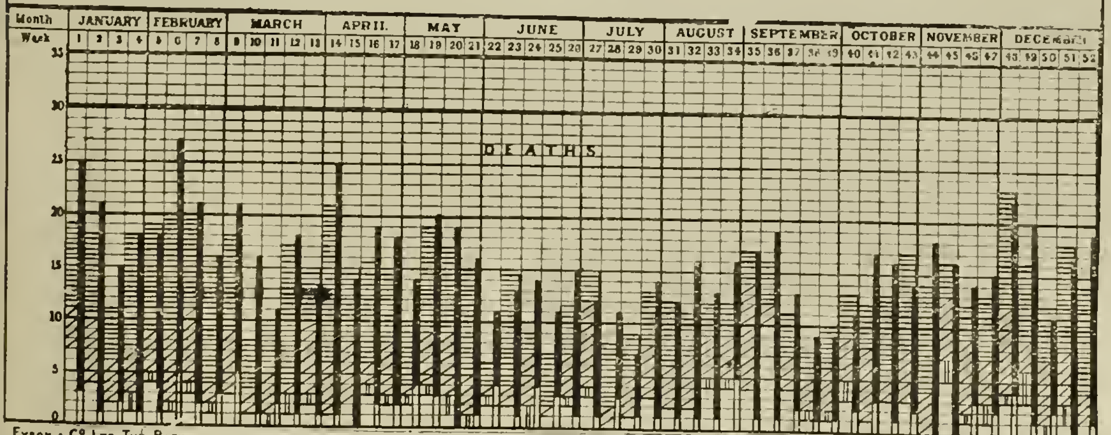
1904.

TEMPERATURE, RAINFALL AND YIELD OF SPRINGS.

Rainfall in Bath—Shaded Lines. At Monkswood—Solid Line.



DEATHS FROM ALL CAUSES.



Fyson & Co. Ltd. Typ., Bath.

S. Hawkins

NOTES:—Total deaths registered each week shown by solid black line; blank space at base indicates deaths of non-resident.

Deaths of Residents actually occurring weekly shown by shaded lines in age periods under 1, 1-5, 5-60 and 60 years upwards.

Observations are made at Henrietta Park at 8 a.m., 9 a.m. and 6 p.m., and at seven other stations at 9 a.m. Telegrams are dispatched at 8 a.m. and 6 p.m. to the Meteorological Office, returns are also made to the Registrar General, the Royal Meteorological Society, "British Rainfall," and to the Editor of "Symons's Meteorological Magazine."

I have to regret the loss of Mr. Craven's assistance in this department. From the establishment of the Henrietta Park Climatic Station until the end of June last he had taken the 9 a.m. readings and helped me generally with the work, but he has so many other duties that he desired to be relieved of this demand upon his time. Harold Burt now undertakes this work, his records are compared with those taken by me at Combe Park and I find him a reliable observer.

But it is surprising how few persons can take twenty consecutive daily readings of any instrument without making a mistake, usually with thermometers the mistake is one of 5° or 10° and with the barometer half an inch, such mistakes can be rectified from self-recording instruments, the cheap forms of which only register approximately the temperature and pressure. Messrs. Lander and Smith, of Canterbury, are now bringing out a series of such instruments at very low prices. I had an opportunity of examining some of these at the British Association Meeting at Cambridge last August and also at the recent Exhibition of the Royal Meteorological Society in London. I then ordered some special instruments for measuring radiation low temperatures, and another for showing directly the amount of moisture in the air, I also arranged to have a self-recording thermograph. These instruments will be a great help to us, but others are also wanted ; an instrument for recording continuously the direction of the wind being perhaps the most needed ; it is supposed that some diseases are carried in the air and an accurate record of its direction is therefore important, and, as I have previously pointed out, a self recording rain gauge would be a help in predicting floods.

There can be no doubt that for the past three years we have not registered all the sunshine. In my report for 1901 I referred to the obstruction of light by a new building; I thought we might fail to record half an hour of early sunshine, and the glass ball had become coloured. Another Recorder has now been obtained from Negretti and Zambra, the Pleasure Grounds Committee has sanctioned the use of a site in Alexandra Park and given permission for me to arrange with the gardener to take the cards and transmit them to the office. The City Surveyor has kindly arranged a suitable stand and fence. Mr. Jones, the Engineer of the Hot Mineral Water Baths has made a stand with levelling screws and designed a platform for the observer, the Recorder being about 13 feet above the ground level with a clear horizon from E.N.E. to W.N.W. except for distant hills, which are about five degrees above the horizon ; as the sun has not sufficient power to make a record until it has passed this altitude there should be no loss.

Considerable alterations have been made at my own station in that I have been able to secure a piece of land projecting 100 feet beyond the general line of gardens. The Stevenson's screen is freely exposed on the South and East and 200 feet from any building in other directions ; the subsoil is blue lias rock about one foot below the surface of grass. At the Henrietta Park station we have one foot of soil upon sand and gravel, and the minimum on the grass is always considerably below that registered at Combe Park. I think this must be because there are no buildings within several hundred feet, and not because the soil is sandy. In my own plot I have laid down a portion ten feet square with sand 18 inches deep directly on the rock, but with no soil or grass above ; the minimum thermometer, supported one inch above the surface of this sand, registers two or three degrees above the thermometer similarly exposed above grass ; other thermometers upon asphalte and stone usually indicate intermediate temperatures, while the thermometer placed on the screen and one projecting from the screen, five feet six inches above the grass, show higher temperatures. The thermometer placed on the grass is very liable to be broken, and it would be an advantage if one could get the same information from a thermometer placed above the screen. The thermometer one foot below the surface in sand registers three or four degrees below a similar thermometer in a loamy soil under grass in frosty weather ; during the summer the sand will probably be as much in excess. It is important to have one foot earth thermometers in glass and not in metal tubes, as otherwise the true temperature is not recorded.

The temperature and moisture of the surface soil have an important influence on the growth and multiplication of many organisms connected with disease, and upon the production of mists or fogs. An air temperature below 40° with an earth or river temperature above 40°, a more or less stagnant atmosphere and the presence of dust particles in the air are the four principal conditions tending to produce fog. The western suburbs of Bath are more liable to fog than Bath ; Penn Hill and Twerton Hill on either side of the river appear to keep back or break up the river mist which tends to drift up from the south-west.

We never get a real fog in Bath ; 1904 was noted for its fogs in London, but in Bath there were only six days when the outline of trees or houses could not be seen at 9 a.m. at a distance of 1,000 feet ; we should call these dense fogs, whereas in London during a dense fog one cannot see an object at a distance of ten feet.

The scale we use in recording mists is based upon the limit of visibility ; if a hill twelve miles distant can be clearly seen, we should record no mist, but if a hill six miles distant could not be clearly seen we should note F1, 3 miles F2, 1½ miles F3, . . 1,000 feet or 400 paces F8, 200 paces F9. Lamp posts are useful units at night if their distance is known.

CONCLUSION.

In conclusion I wish to again draw attention to the importance of correcting death-rates, particularly death-rates from special diseases, for the abnormalities of the age and sex constitution of the population of Bath, if we wish to compare these death-rates with those of other districts. Dr. Tatham, in the Registrar General's Report for 1902, writes :—"It is desirable again to emphasize the caution there given against accepting the mere proportion of deaths to population as evidence of relative healthiness. It is familiar knowledge that the proportions of persons living at various ages vary according as the district is urban or rural in character ; and in as much as mortality is known to vary extremely with age, it follows that crude death-rates calculated without reference to these considerations must be regarded as of little scientific value."

In most urban districts the corrected death-rate is above the crude death-rate, the average increase for urban districts being 3·9 per cent., in rural districts : correction reduces the average rates no less than 12 per cent. For the population of Bath correction reduces the rate about 11 per cent. and for the diseases of old age special correction is needed. For such diseases I have thought it best to calculate the number of deaths which would take place if the mortality from these diseases were the same as in England generally, and to compare this number with that actually recorded ; if we double these numbers we shall have approximately the rates per 100,000 for comparison with other districts, and Bath will certainly nor suffer from the comparison, but inasmuch as Bath is so exclusively a residential district it is scarcely fair to other districts to make comparison, but we must not neglect the small working-class population which we have because our general death-rate is low and our infantile death-rate much lower than the average of England ; these are certainly capable of still further reduction. Many lives are wasted every year which by a little care, a little more knowledge, might be easily saved; for this reason I must again refer to the great work which is being done in large towns by female inspectors, I think that one could be very usefully employed in Bath.

Finally I wish to acknowledge the cheerful assistance I have had from each member of the Staff of the Health Department: some idea of the amount of routine work done may be gathered from the Inspectors' Reports which I have appended. I have also to thank the Chairmen and Members of the various Committees of the Authority for the kind consideration shown to me.

I remain, their obedient servant,

W. H. SYMONS, M.O.H.

Guildhall, Bath ;

March 13th, 1905.

Return to Medical Officer of Health of Occupied and Void Houses.

NAME OF PARISH.	APRIL 1ST, 1904.				OCTOBER 1ST, 1904.				Per-centage Void.
	Private Houses, Hotels, Shops.		Other Buildings.		Private Houses, Hotels, Shops.		Other Buildings.		
	Let.	Void.	Let.	Void.	Let.	Void.	Let.	Void.	
Bathwick	851	84	80	16	841	94	79	13	10·4
Lyncombe and Widcombe ..	3252	246	179	11	3288	250	170	17	7·2
St. James'	631	13	139	5	631	11	140	6	2·2
St. Michael's	277	18	80	5	282	15	73	5	5·3
St. Peter and St. Paul's ..	247	14	48	0	256	9	40	0	2·9
Walcot	4734	291	324	32	4745	295	326	35	6·1
	9992	666	850	69	10043	674	828	76	6·5

H. J. HALL, *Assistant Overseer.*

2nd December, 1904.

WEEKLY NOTIFICATIONS OF INFECTIOUS DISEASES FOR THE YEAR 1904.

WEEK.		Small Pox.	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Chicken Pox.	Puerpural Fever.	Erysipelas.	Total.
No.	Date of Ending.								
1	January 9 ..	—	1	—	—	2	—	1	4
2	16 ..	—	—	—	—	1	—	—	1
3	23 ..	—	1	—	—	3	—	—	4
4	30 ..	—	2	—	—	1	—	—	3
5	February 6 ..	—	2	4	—	3	—	—	9
6	13 ..	—	1	1	—	2	—	—	4
7	20 ..	—	3	—	—	2	1	—	6
8	27 ..	—	—	—	—	—	—	2	2
9	March 5 ..	—	—	1	—	—	—	1	2
10	12 ..	—	2	—	—	6	—	1	9
11	19 ..	—	—	—	—	—	—	—	—
12	26 ..	—	—	—	—	10	—	2	12
13	April 2 ..	—	—	—	—	2	—	—	2
14	9 ..	—	1	—	—	2	—	3	6
15	16 ..	—	—	—	—	4	—	—	4
16	23 ..	—	—	—	—	1	—	—	1
17	30 ..	—	—	—	—	2	—	1	3
18	May 7 ..	—	3	2	—	1	—	—	6
19	14 ..	—	2	1	—	3	—	—	6
20	21 ..	—	—	5	—	3	—	1	9
21	28 ..	—	—	—	—	2	—	—	2
22	June 4 ..	—	1	1	—	4	—	—	6
23	11 ..	—	1	—	—	2	—	—	3
24	18 ..	—	—	2	—	2	—	2	6
25	25 ..	—	—	1	—	6	—	1	8
26	July 2 ..	—	1	1	—	6	—	—	8
27	9 ..	—	1	2	—	2	1	1	7
28	16 ..	—	—	1	—	4	—	—	5
29	23 ..	—	—	4	—	4	—	—	8
30	30 ..	—	1	—	—	—	—	—	1
31	August 6 ..	—	—	2	—	—	—	—	2
32	13 ..	—	—	3	—	—	—	1	4
33	20 ..	—	—	1	—	—	—	—	1
34	27 ..	—	—	1	—	—	—	—	1
35	September 3 ..	—	—	1	—	—	—	1	2
36	10 ..	—	3	3	—	—	—	1	7
37	17 ..	—	1	—	—	—	—	1	2
38	24 ..	—	1	5	—	—	—	2	8
39	October 1 ..	—	—	—	—	—	—	—	—
40	8 ..	—	—	1	1	—	—	—	2
41	15 ..	—	—	1	—	—	—	—	1
42	22 ..	—	—	—	—	—	—	—	—
43	29 ..	—	1	1	—	1	—	1	4
44	November 5 ..	—	—	1	—	1	—	—	2
45	12 ..	—	—	6	—	2	—	—	8
46	19 ..	—	—	6	—	1	—	1	8
47	26 ..	—	2	3	—	—	—	1	6
48	December 3 ..	—	1	2	1	1	—	1	6
49	10 .	—	2	—	—	1	—	1	4
50	17 ..	—	—	3	—	—	—	1	4
51	24 ..	—	1	3	—	1	—	—	5
52	31 ..	—	1	3	—	—	—	1	5
Totals ..	..	—	36	72	2	88	2	29	229

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR, 1904.

January 1st to December 31st, 1904.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.														TOTAL CASES NOTIFIED IN EACH LOCALITY.										NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.											
	At all Ages.		At Ages—Years.												WALCOT.		LYN. & WID.		BATHWICK.		BATH.				WALCOT.		LYN. & WID.		BATHWICK.		BATH.					BATH RURAL.
			Under 1.		1 to 5		5 to 15		15 to 25.		25 to 65.		65 and over.																							
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Small-pox																																				
Cholera																																				
Diphtheria	39	32			15	9	21	19	1	3	2	1			4	2	33	30	2		39	32			4	3	25	23	2		31	26				7
Membranous croup																																				
Erysipelas	11	16			1					1	8	9	2	6	6	5	5	12		1	11	16														
Scarlet fever .	16	20			3	1	10	13	3	5		1			7	11	9	3		6	16	20			5	9	5	3		3	10	15				19
Typhus fever ..																																				
Enteric fever ..	1	1								1	1				1			1			1	1														
Relapsing fever ..																																				
Continued fever																																				
Puerperal fever ..		2										2				1		1				2														
Plague .. .																																				
Chicken Pox ..	41	48		2	9	20	26	16	6	10					12	34	16	12	13	2	41	48														
Measles																										1						1				
Totals	108	110		2	28	30	57	48	10	20	11	13	2	6	30	51	63	59	15	9	108	119			9	13	30	26	2	3	41	42				26

ISOLATION HOSPITAL, CLAVERTON DOWN.

Medical Attendant: E. FIELD, M.D. (Aberd.), M.R.C.S., L.R.C.P. Matron: Miss M. CROFTS.

Vital Statistics.

MARRIAGES REGISTERED IN THE CITY OF BATH.

Quinquennial Means 1891-5, 1896-1900.
Annual Returns 1901, 1902, and 1903.

Years.	Winter.	Spring.	Summer.	Autumn.	Year.	Rate. per 1000.
1891-1895	88	122	131	126	466	17·9
1896-1900	78	124	129	121	451	16·0
1901	78	131	127	124	460	18·5
1902	88	115	116	130	440	17·7
1903	82	105	137	117	441	17·7
1904	68	125	127	114	434	17·4

In England and Wales during 1894-1903 the Mean Annual Rate per 1000 of Persons Married was 15·8.

QUARTERLY RETURNS OF BIRTHS.

Births Registered.	Winter.	Spring.	Summer.	Autumn.	Year 1903.
Legitimate ...	250	235	286	213	984
Illegitimate ...	19	8	10	13	50
Total Births ...	269	243	296	226	1,034
Rate per 1000	21·7	19·5	23·8	18·2	20·76
English Rate do.	28·5	28·4	27·9	25·8	27·90

BIRTHS REGISTERED IN BATH DURING THE YEAR.

District.	Males.	Females.	Persons.	Rate per 1000
Walcot	313	292	605	19·4
Lyn-Widcombe ...	170	189	365	26·3
Workhouse ...	7	6	13	
Bathwick ...	29	22	51	11·9
City of Bath ...	525	509	1,034	20·76

VACCINATION RETURNS.

Children Born, Vaccinated, or Dying before Vaccination.

District.	1902.			1903.			1st Half of 1904.		
	Born.	Vac.	Died.	Born.	Vac.	Died.	Born.	Vac.	Died.
Walcot ...	573	495	43	603	456	46	304	217	25
Lyn-Widcombe...	357	273	23	368	269	36	183	129	17
Bathwick ...	48	36	4	56	54	3	26	20	2
City of Bath ...	978	804	70	1027	779	85	513	366	44

The number of primary vaccinations per 1000 living infants was 822 in 1901, 885 in 1902, 816 in 1903, and at the rate of 780 per 1000 for the first half of 1904. The mean rate for the decennium 1891-1900, calculated from the figures available, was 695. These rates include children vaccinated by private practitioners.

Vital Statistics of separate Localities in 1904 and previous years.

COUNTY BOROUGH OF BATH.

NAMES OF LOCALITIES.	BATH. Population 49,839.						WALCOT. Population 31,183.						LYNCOMBE & WIDC'BE. Population 14,372.						BATHWICK. Population 4,284.					
YEAR.	Births registered.		Deaths at all Ages.		Deaths under 1 year.		Births registered		Deaths at all Ages		Deaths under 1 year.		Births registered.		Deaths at all Ages.		Deaths under 1 year.		Births registered		Deaths at all Ages		Deaths under 1 year.	
	M.	F.	M.	F	M	F	M.	F.	M.	F.	M	F	M.	F.	M.	F.	M	F	M.	F.	M.	F.	M	F
1894 ...	550	562	435	476			337	352	300	314			186	182	116	131			27	28	19	31		
1895 ...	565	542	424	532			359	342	272	356			170	167	135	132			36	33	17	44		
1896 ...	576	510	442	479			371	299	280	313			186	182	132	128			19	29	30	38		
1897 ...	532	477	389	472			335	299	273	309			164	159	99	119			33	19	17	44		
1898 ...	541	462	413	443	83	54	318	280	271	289			200	158	116	125			23	24	26	29		
1899 ...	514	506	433	528	73	61	307	307	283	332			186	176	129	165			21	23	21	31		
1900 ...	496	466	382	468	66	55	299	267	256	317	38	31	171	176	110	115	24	20	26	23	16	36	2	2
1901 ..	508	467	415	461	53	48	288	258	254	266	35	30	198	177	143	156	16	14	22	32	18	39	2	4
1902 ...	489	499	389	433	60	45	280	300	254	303	36	30	179	180	111	93	20	13	30	19	24	37	4	2
1903 ...	527	500	302	366	56	37	296	304	204	252	38	15	199	167	74	78	16	14	32	29	24	36	2	2
Averages of Years 1894 to 1903.	529·8	499·1	402·4	465·8			319·0	300·8	264·7	305·1			183·9	172·4	116·5	124·2			26·9	25·9	21·2	36·5		
1904 ...	525	509	328	410	63	52	313	292	210	214	38	29	183	195	87	93	21	22	29	22	31	33	4	1

Vital Statistics of Whole District during 1904 and Previous Years.

COUNTY BOROUGH OF BATH.

Year.	Population estimated to Middle of each Year.	Births.		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-Residents Registered in Public Institutions in the District.	Deaths of Residents Registered in Public Institutions beyond the District	Net deaths at all Ages belonging to the District.	
				Under 1 Year of Age.		At all Ages.						
		Number.	Rate.*	Number.	Rate per 1,000 Births Registered.	Number.	Rate.*				Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1894	51,200	1112	21 72	146	131	911	17·79	179	..	..	..	..
1895	51.000	1107	21·71	149	134	956	18·74	170	..	..	..	..
1896	50,800	1087	20·97	153	141	921	17·79	195	55	7	873	17·18
1897	50,600	1009	19·94	129	128	861	17·02	179	61	5	805	15·91
1898	50,400	1003	19·84	137	136	856	16·98	194	73	2	785	15·57
1899	50,200	1020	20·32	134	131	961	19·14	229	81	3	882	17·57
1900	50,000	962	19·14	121	126	933	18·66	193	89	6	850	17·00
1901	49,800	973	19.58	101	104	876	17·59	177	73	7	803	16·12
1902	49,800	988	19·40	105	106	911	17·93	223	70	2	822	16·48
1903	49,800	1027	20·62	92	89	751	15·08	135	57	2	668	13.41
Aver. 1894-1903	50,370	1028·8	20·32	127	123	894	17·67	187	70	4	811	12·92
1904	49.800	1034	20·76	121	117	826	16·58	212	75	8	738	14·82

* Rates in Columns 4, 8, and 13 calculated per 1.000 of estimated population.

NOTE.—The deaths to be included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The deaths to be included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there ; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

The "Public Institutions" to be taken into account for the purposes of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums.

Area of District in Acres (exclusive of area covered by water), 3,338

Total population at all ages ...	49,839	At Census of 1901.
Number of inhabited houses ...	9,317	
Average number of persons per house	5·3	

N.B.—In Column 10 of year 1904, 21 Non-residents dying in Private Houses, Nursing Institutions, are excluded. In column 5 of year 1904, Non-residents are included ; the net infantile mortality being 111.

CITY OF BATH.

Causes of, and Ages at, Death during the Year 1904, including 8 Deaths at Statutory Hospital.

	CAUSES.	Persons.	M.	F.	DEATHS IN WHOLE DISTRICTS AT SUBJOINED AGES. — 1		1—5		5 to 10		10 to 15		15 to 20		20 to 25		25 to 35		35 to 45		45 to 55		55 to 60		60 to 65		65 to 75		75 to 80		80 to 85		85 & over		DEATHS IN LOCALITIES. WALCOT.		LYN-WID.		BATHW'K		Non-Res.		Public Inst. Res.	
					M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F.	M	F.	M	F.	M	F.	M	F
2	Measles..	4	2	2	..		2	2	..		..		..		..		..		..		..		..		..		..		..		..		..		2	1		1	..		..			1
3	Scarlet-fever	..	..	..	..		..		..		..		..		..		..		..		.		..		..		..		..		..		..		..		..		..		..		.	
5	Influenza	10	5	5	1		..		..		..		..		..		..		1		..		..		2			2	..		1	1		2	3	3	1		1	2	..		1	
6	Whooping-cough	15	6	9	3	6	3	3	..		..		..		..		..		..		..		..		..		..		..		..		..		5	7	1	2	..		..		..	
7	Diph. and M. Crp	10	9	1	..			1	3		..		..		..		..		.		..		..		..		..		..		..		..		1		8	1	..		..		7	1
9	Fever Enteric	1	1	..	..		..		..		..		..		..		..		1		..		..		..		..		..		..		..		1		..		..		..		..	
11	Diarrhœa	10	5	5	2	3		2	..		..		..		..		..		..		1		..		..		1		..		..		1		4	1	1	4	..		..		1	
12	Zymotic Enter.	5	4	1	3	1	..		..		..				.		..		..		.		..		1		..		..		..		..		2	1	2		..		..		..	
13	Enteritis	8	6	2	5	2	..		..		..		..		..		..		..		..		..		1		..		..		..		..		2	2	4		..		1	2		1
15	Erysipelas	..	..	..	..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..	
16	Puerperal fever	1	..	1	..		..		..		..		..		..			1	..		..		..		..		..		..		..		..		..			1	..		..		..	
16a	Venereal	3	1	2	1	2	..		..		..		..		..		..		..		..		..		..		..		..		..		.		1	2	..		..		1		1	1
17	Other Septic	3	2	1	..		..		1		..		..		1		..			1	..		..		..		..		..		..		..		2	1	..		..		2		1	1
17a	Rheumatic	..	..	..	..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..	
19	Tuber. men.	5	2	3	1			2	1		..		..		..		..			1	..		..		..		.		..		..		..		1	3	1		..		..		2	1
19a	Tabes mesent	1	..	1	..			1	..		..		..		..		..		..		..		..				..		..		..		..		..			1	..		..		..	
20	Phthisis	45	27	18	..			1	..		..		2	1		2	7	3	9	7	8	2	1	2	..		..		.		..		..		20	10	6	8	1		7	3	7	5
21	Other tuberclr.	10	4	6	2	2		1	..		..		..		..		1	2	1		..		..		..			1	..		..		..		3	3		2	1	1		1	2	1
23	Cancer ..	62	23	39	..		..		..		..		..		1		..		1	4	3	6	1	6	5	7	9	8	1	3	1	3	1	2	17	26	4	9	2	4	2	2	3	4
24	Premature birth	11	5	6	5	6	..		..		..		..		..		..		..		..		..		..		..		..		..		..		2	3	3	3	..		..		..	
25	Developmental	38	21	17	21	16		1	..		..		..		..		..		..		..		..		..		..		..		..		..		10	10	8	7	3		1		1	3
26	Old age ..	77	32	47	..		..		..		.		..		..		..		..		..		..		1		5	6	3	9	10	12	11	20	21	34	3	5	6	8	2	3	5	12
27	Meningitis	9	5	4	1	3	1		1		..		..		..		..		1	1	..		..		..		..		..		..		1		3	2	2	2	..		1	1	1	2
28	Brain Inflam.	8	4	4	..		..		..		..		..		..		..		..			1	..		1		2	1		1	1	1	..		3	4	1		..		1	2	..	
28a	Apoplexy	31	7	24	..		..		..		..		..		..		..		1	2	2	1		1	1	3	1	7		5	1	4	1	1	4	17	3	2		5	2	1	1	1
28b	Hemiplegia	11	4	7	..		..		..		..		..		..		..		..			1		2	1		3	3		1	..		..		3	7	1		..		1	2	1	5
28c	Spinal ..	4	2	2	..		1		..		..		..		..		..		..		..		1	1	..		..		..		..			1	1	2	1		..		..		1	1

CAUSES.	Persons.	M.	F.	DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES.																										DEATHS IN LOCALITIES.									
				—1		1—5		5 to 10		10 to 15		15 to 20		20 to 25		25 to 35		35 to 45		45 to 55		55 to 60		60 to 65		65 to 75		75 to 80		80 to 85		85 & over		WALCOT.		LYN-WID.		BATHW'K		Non-Res.		Public Inst.	
				M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F.	M	F.	M	F.	M	F.	M	F
29 Heart ..	57	23	34	..		..		..		..		..		..		1	3		1	5	5	3	2	5	3	7	11	1	7	1	2	..		19	24	3	8	1	2	3	5	5	6
29a Heart failure	23	10	13	..		..		..		..		..		..			1	..		2	4	1	1	1		3	2	..		2	2	1	3	8	9	1	2	1	2	3	1	1	1
29b Vessels ..	10	5	5	..		..		..		..		..		..			1	1		1	1		2	1		2			1	..		.		3	4	1	1	1		2		1	1
30 Bronchitis A	33	10	23	2	1	1	1	..		..		..		..		..		..		2	1		2		2	3	6	2	2		5		3	6	18	2	5	2		..		3	1
31 ,, Chronic	31	11	20	..		..		..		..		..		..		..		..		..		1	2	2		4	9	2	2	1	5	1	2	8	16	2	4	1		..		..	
32 Pneumonia	36	17	19	..		3	1		1	..		1		..		3	1		4	1	1	2	1	1		3	5		5	1		2		9	14	7	5	1		1	1	1	2
33 ,, Lobular	28	10	18	6	6	4	2	..		..		..		..			1	..		..		..			2		3		2	..			2	7	12	2	5	1	1	1	2	7	2
34 Stomach	7	3	4	..		..		..		..		..		..		..			1	3		..		..			2	..		..			1	1	4	2		..			1	..	
35 Obstruction	9	2	7	..		..		..		..		..			1		1	..		1	2	..		..			2	1	1	..		..			4	1	2	1	1	4	1	2	5
36 Cirrhosis, Liver	12	9	3	..		..		..		..		..		..		2		..		4	2	1		1	1	1		..		..		..		6	3	1		2		1	1	3	1
37 Nephritis	23	12	11	..		..		..		..		..		..		1		3		2	3	3		1	4	2	2		2	..		..		7	5	3	2	2	4	7	3	5	1
38 Genital ..	2	..	2	..		..		..		..		..		..		..			2	..		..		..		..		..		..		..			1		1	..			2		2
39 Parturition	2	..	2	..		..		..		..		..			1	..			1	..		..		.		..		..		..		..			2	..		..		..		..	
40a Mechanical	7	2	5	..		..		..		..		..		..		..		1		1	1	..		..			2		1	..			1	1	4	1	1	..		..		1	2
40b Burns, Scalds	2	..	2	..		..			1	..		..		..		..		..		..		..		..			1	..		..		..			2	..		..		1	2		1
40c Poisons .	..	..	..	..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..	
40d Drowning	1	1	..			..		1		..		..		..		..		..		..		..		..		..		..		..		..		..		1		..		..		..	
40e Suffocation	3	1	2	1		..		..		..		..		..		..			1	..		..			1	..		..		..		..		1	1		1	..		..			1
41 Suicide .	3	2	1	..		..		..		..		.		..		..		..		1	1	..		..		1		..		..		..		1	1	..		1			1	..	
42 Ill defined	..	..	..	..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..	
43 All other causes	67	35	32	9	4	1		..		2			1	..		2	5		5	3	1	5	4	3	2	8	6	2	3	..			1	22	21	10	8	3	3	12	3	11	5
Total	738	328	410	63	52	22	18	7	2	2		3	2	2	4	17	19	20	31	40	33	19	26	28	25	55	79	12	45	19	35	19	39	...		..		..		..		..	
Walcot	494	210	284	38	29	11	12	1	2	2		1	1	2	2	11	12	15	24	24	21	12	22	19	15	40	58	5	30	14	29	15	27	210	284	..		..		..		..	
Lyn-Wid.	180	87	93	21	22	10	6	6		..		2	1		2	3	6	4	7	11	9	7	4	7	7	9	13	4	9	1	3	2	4	..		87	93	..		..		..	
Bathwick	64	31	33	4	1	1		..		..		..		..		3	1	1		5	3	..		2	3	6	8	3	6	4	3	2	8	..		..		31	33	..		..	
Non-resident	96	56	40	5	1	1	4	2	1	1		2	1	3	1	8	6	6	4	9	5	5	3	2	3	6	6	3	2	3	3	..		..		..		..		56	40	..	
Public Inst. Residents	146	75	71	11	9	7	5	4	2	1		1		2	1	7	5	7	8	9	7	2	6	9	5	10	10	2	5	2	4	1	4	..		..				..		75	71

Mortal Statistics.

DEATH-RATES PER 1000 IN TOWNS AND COUNTRY DISTRICTS OF ENGLAND AND WALES AND IN BATH AND SUB-DISTRICTS, FOR EACH QUARTER OF THE YEAR AND FOR THE YEAR 1904.

	Winter.	Spring.	Summer.	Autumn.	Year.
England and Wales ...	18·2	14·8	15·7	16·3	16·2
76 Great Towns	18·7	15·3	17·5	17·5	17·2
142 Smaller Towns ...	17·2	13·8	15·4	15·9	15·6
Rural England and Wales ...	18·0	14·5	13·9	15·1	15·3
Bath, County Borough ...	15·3	13·2	11·0	14·0	13·3
Walcot, Sub-District ...	16·4	14·9	12·0	15·3	14·7
Lyn-Widcombe	14·0	10·6	9·4	12·7	11·6
Bathwick	15·6	12·3	11·5	13·1	13·1

CORRECTED SUB-DISTRICT MORTALITY, INCLUDING 8 DEATHS AT STATUTORY HOSPITAL.

	Private Houses.		Hospital.		Workhouse.		Total	Corrected Rates.	
LOCALITY OF DEATHS.	Male.	Female.	Male.	Fem.	Male.	Fem.	Persons.	Nett.	Standard
Walcot	160	234	21	16	29	34	494	15·9	14·68
Lyn-Widcombe ...	68	74	16	11	3	8	180	12·5	11·60
Bathwick	25	31	3	1	3	1	64	14·9	13.08
Bath	253	339	40	28	35	43	738	14·8	13·32
Non-Municipal ...	13	9	29	20	15	10	96	...	...

	Males.	Fem.	Persons.
Uncertified Deaths	1	4	5
Inquests	24	32	56

ANNUAL DEATH-RATES PER 1000 FROM ALL CAUSES, AND FROM SEVEN ZYMOTIC DISEASES.

	All Causes.	Zymotic Diseases.	Smallpox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhœa.	Deaths Under 1 Year per 1000 births.
England and Wales ..	16·2	1·94	0·01	0·36	0·11	0·17	0·34	0·09	0·86	146
Bath	13·3	0·90	..	0·08	..	0·20	0·30	0·02	0·30	111
76 Great Towns ..	17·2	2·49	0·01	0·47	0·12	0·19	0·40	0·10	1·20	160
142 Other Large Towns	15·6	2·02	0·03	0·36	0·13	0·16	0·35	0·10	0·89	154
England & Wales (less the 218 Towns	15·3	1·28	0·01	0·23	0·09	0·14	0·27	0·08	0·46	126

Annual Report of Medical Officer of Health for 1904, for the County Borough of Bath.

FACTORIES. WORKSHOPS. LAUNDRIES, WORKPLACES AND HOMEWORK.

1.- INSPECTION.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR INSPECTORS OF NUISANCES.

Premises.	Inspections.	Written Notices.
Factories (including Factory Laundries)	12	2
Workshops (including Workshop Laundries)	493	16
Workplaces	35	2
Homeworkers' Premises	369	19
Total ...	909	39

2.—DEFECTS FOUND.

Particulars.		Found.	Remedied.
Nuisances under the Public Health Acts:—			
Want of Cleanliness		21	all
Want of Ventilation		9	"
Overcrowding		1	"
Want of drainage of floors		—	"
Other nuisances		9	"
Sanitary accommodations (P.H.A. Act 1890 in force. Standard adopted is that of Sanitary Accommodation Order, Feb. 4, 1903). ...	insufficient ...	2	"
	unsuitable or defective	10	"
	not separate for sexes	1	"
Offences under the Factory and Workshops Act:—			
Illegal occupation of underground bakehouse (S. 101)		1	in hand
Breach of special sanitary requirements for bakehouses (SS. 97 to 100)			
Failure as regard lists of outworkers (S. 107) ...			
Giving out work to be done in premises which are	unwholesome (S. 108)		
	infected (S. 110) ...		
Allowing wearing apparel to be made in premises infected by scarlet fever or small-pox (S. 109)			
Other offences			
Total ...		55	53

3.—OTHER MATTERS.

Class.		No.
Matters notified by H.M. Inspectors of Factories:—		
Failure to affix Abstract of the Factory and Workshop Act (S. 133)		—
Notices received from H.M. Inspector related to Cleansing of Workrooms	Notified by H.M. Inspector	3
	Reports (of action taken) sent to H.M. Inspectors	3
Other		—
Underground Bakehouses (S. 101) :—		
In use during 1903		28
Certificates granted	in 1903	12
	in 1904	2
In use at the end of 1904 :—		16
Homework :—		

Lists of Outworkers (S. 107).		Lists.	Out-workers
Lists received (from 35 firms)		38	338
Addresses of outworkers	forwarded to other Authorities	5	75
	received from other ,,	1	1

Homework in unwholesome or infected Premises :—

	Wearing Apparel.
Notices prohibiting homework in unwholesome premises (S. 108)	—
Cases of infectious disease notified in homeworkers' premises	1
Orders prohibiting homework in infected premises (S. 110)	—
Workshops on the Register (S. 131) at the end of 1904 (12 discontinued in 1904) (67 added in 1904)	
Workshops	315
Workplaces	67
Domestic Workshops	24
Workshop Bakehouses	6
Laundries	7
Total number of workshops on Register	419

Sanitary Condition of Workshops.

(*a*) Cleanliness. Twenty-one workshops were found in a dirty condition, 11 were cleansed and limewashed after notice served on the occupier, and 10 were cleansed upon verbal complaint being made. Of the dirty workrooms, 8 were dressmakers, 7 were tailors, 3 bootmakers or repairers, and 1 watchmaker, 1 cabinet maker, and 1 carver. With these exceptions the workshops generally were found fairly clean.

(*b*) Air Space. Only one workshop was found to be overcrowded. In many workshops the air space is well above the minimum standard of 250 cubic feet of space per person laid down by Section 3 of the Factory and Workshop Act. In some of the workshops the requirements of the Act were barely complied with, but by a re-arrangement of the employées the conditions have been greatly improved.

(*c*) Ventilation. Nine workshops were deficient in ventilation. The Act states that "in every room in any factory or workshop sufficient means of ventilation shall be provided, and sufficient ventilation shall be maintained." As a rule I have found that where the means of ventilation are sufficient the employées object to make use of them ; complaints are made of 'draughts," and in some instances the windows are kept tightly shut and the ventilating openings covered with paper or rags.

(*d*) Drainage of Floors on which Wet Processes are Carried on. These were found generally satisfactory.

(*e*) Sanitary Conveniences. Two workshops were without proper sanitary conveniences for the persons employed ; and in one workshop separate accommodation was not provided for the sexes. In each case suitable provision has been made. Ten defects were found in connection with the sanitary conveniences of the various workshops. In several instances the w.c.'s are badly situated, and these are difficult to improve as all the available space is taken up by the workrooms.

The drains were found defective in 3 workshops.
The paving was ,, ,, 4 ,,
The roof and rain water pipes ,, 3 ,,

These defects have all been remedied after notice upon owner or occupier.

Three Notices were received from H.M. Inspector of Factories relating to the cleansing of workrooms, and these received prompt attention.

Outworkers.

Thirty-eight lists containing the names and addresses of 338 outworkers were received from 35 employers. 75 outworkers whose names were on the lists were outside the district and their addresses were forwarded to the Authorities of the districts in which the workers resided. 263 were resident in the City, and there have been 369 inspections and re-inspections of outworkers premises. 19 nuisances were found, but these were not of a serious nature, the premises generally were in a satisfactory condition.

W. A. CRAVEN, A.R.S.I.,
Sanitary Inspector.

Municipal Offices, Bath;
March 9th, 1905.

Factory and Workshop Act, 1901.

Number of Workshops on Register, Dec. 31st, 1904 ...	419
Workshop Inspections and Re-inspections during 1904 ...	493
Homeworkers Premises Inspected	369
Workshops Discontinued during the Year	12

The following Workshops were Inspected and added to the Register during the year :—

General Smiths and Fitters	2
Engineers	2
Gasfitters	3
Dentist's Mechanic	1
Cycle Makers and Repairers	2
Watch and Clock Maker	1
Carpenter	1
Cabinet Makers	2
Carver and Gilder	1
Coach Painters	2
Tailors	9
Dressmakers	31
Milliners	5
Umbrella Makers	2
Bakers, &c.	2
Ale Bottling	1
	67

The above premises contain 86 workrooms, and at the time of Inspection 318 workers were employed therein.

Inspector of Nusiances' Report for the Year ending December 31st, 1904.

7,334 inspections, re-inspections, and visits of enquiry have been made during the year. This number includes house-to-house inspections, slaughter-houses. food stores, bakehouses, dairies, mews, offensive trades, common-lodging houses, canal boats, workshops and work-places, out-workers' premises, houses in which infectious disease has occurred, &c.

House-to-house inspections have been made as follows :—

Angel Place, Lower Bristol Road	13
Abraham's Court and Peter Street	33
Albion Cottages and Buildings, &c.	30
Back Lane and Rose Hill	20
Ballance Street	45
Bedford Street, &c.	41
Berkeley Street	24
George's Buildings	7
Mezellion Place	4
Mount Pleasant	17
Hedgemead Cottages and Camden Cottages ...	26
Jones' Buildings	4
Weymouth Square and Buildings	30
Albert Terrace, Snow Hill	4
St. Ann's Place	7
Calton Road	14
Davis's Place	5
Middle Dover Street and Place	9
Edmund's Place	2
Lambridge Street	17
Lark Place	13
Paradise Street and Terrace	26
Onega Terrace	7
Victoria Terrace	4
Pulteney Place	7

Re-inspections have been made of the houses in Back Street, Corn Street, Little Corn Street, St. James's Place, Pleasant Place, Abbey Green, Abbey Street, Somerset Street, New Quay, Broad Quay, Ambury, Margaret's Passage, North Parade Buildings, London Place, Chapel Court, Bridewell Lane, Cross Lane, Calton Road, Holloway Courts, Trinity Place, St. Andrew's Court, Broad Street Place, Milk Street, &c.

133 nuisances from defective drains and soil pipes were abated by structural works.
121 nuisances from defective w.c.'s were abated.
7 ,, ,, ,, urinals ,,
43 ,, ,, ,, waste pipes were abated.
38 ,, ,, ,, rain water pipes ,,
31 ,, ,, ,, ventilation (windows made to open, &c.)
43 ,, ,, ,, paving were abated.
14 ,, ,, ,, roofs, ceilings, &c., abated.
7 ,, ,, ,, cesspools ,,
14 premises with unsatisfactory water supply have had water direct from the main laid on.
2 samples of drinking water were submitted for analysis.
1 ,, ,, ,, condemned as unfit for drinking purposes.
113 Premises were cleansed and whitewashed.
10 Nuisances from over-crowding abated after notice.
46 Accumulations of ashes, &c., in houses and yards removed after notice.
22 Ashbins provided after notice.
78 Nuisances from keeping pigs, fowls, rabbits, &c., abated.
3 Nuisances in slaughter-houses abated.
1 ,, offensive trade premises abated.
2 ,, common lodging-houses ,,
17 ,, accumulation of manure, &c., in mews abated.
1 Cellar dwelling closed after notice.
29 Nuisances from various causes abated.
8 Smoke nuisances abated after 180 observations.
1 Nuisance from leakage in gas main reported to Gas Co.
40 Acumulations, &c., removed after notice to Surveyor.
469 Premises inspected in which no nusiance was discovered.
67 Workshops placed on Register after inspection.
473 Workshops and workplaces re-inspected.
369 Homeworkers' premises inspected.
452 Inspections of dairies, &c.
574 ,, Common Lodging Houses.
1456 ,, Slaughter Houses.
165 ,, Offensive Trade Premises.

129 Inspection of Canal Boats.

149 Samples obtained under Food and Drugs Acts.

359 Visits to Bakehouses, Food Stores and other Premises have been made.

The following articles of food were destroyed as diseased, unsound or unwholsome :—

623 lbs. Pork ; 13 cwt. of Cod and Ling ; 2 boxes Haddock ; 18 cases of Spanish Onions ; 6 sacks of Potatoes ; 282 lbs. of Tomatoes ; 13 barrels of Grapes.

WALTER A. CRAVEN, A R.S.I.
Inspector of Nuisances.

Municipal Offices, Bath :
March 9th, 1905.

Sale of Food and Drugs Acts, 1875-1899.

The following samples were submitted for analysis under the above Acts during the year, 1904.

Description of Article.	Number of Samples.	Genuine.	Adulterated.	
Milk	72	70	2	One contained 22°/o added water. Fined 21/- or 7 days. One contained 22°/o added water. Fined £10 or one month.
Butter	47	44	3	One contained 17°/o water, and ·6 boric acid. Fined 40/- and £3 3s. costs. Two contained 16·5°/o water. No action taken (14 contained over 15°/o water, and 7 over ·25 boric acid).
Pepper	8	8		One of poor quality.
Coffee	7	7		
Jam	4	4		One of poor quality.
Lard	2	2		
Arrowroot	2	2		
Ground Ginger	2	2		
Beer	1	1		Contained no injurious ingredient.
Golden Syrup	1	1		
Lime Juice	1	1		Free from lead and foreign acids.
Marmalade	1	1		
Vinegar	1	1		
	149	144	5	

January 20th, 1905. WALTER A. CRAVEN.

The Public Analyst also reports on 11 articles submitted to him by private persons: all of which were genuine.

Milk, 6; Butter, 1; Brandy, 1; Whisky, 1; Jam, 1; Lard, 1.

Report on the Inspection of Canal Boats, for the year 1904.

Guildhall, Bath,
2nd January, 1905.

Dear Sirs,

In accordance with the circular of the Local Government Board and Section 3 of the Canal Boats Acts, 1884, which enacts that every Sanitary Authority within whose district any canal or part of a canal is situate shall make an Annual Report to the Board as to the execution of the Canal Boats Acts, 1877 and 1884, and of the regulations made thereunder, I have to report that during the year 1904 I inspected 129 canal Boats as compared with 106 in the preceding year.

I am of opinion that there has been an improvement in the general condition of the boats and their occupants. I have not found any overcrowding, as a rule each boat only carries the men necessary for the work, and it is now quite unusual to find women or children travelling with the boats, the advantages of a home on land evidently being more appreciated by them.

The breaches of the Acts and regulations were as follows, none being of a serious nature :—

5 Cabins required repainting.
3 ,, ,, cleansing.
1 ,, was insufficiently ventilated.
4 Boats required general repairs.
2 ,, were not properly marked.
4 ,, were without certificates of registration.

In each of the above infringements it was not necessary to take or threaten legal proceedings, the required alterations being readily carried out after representations to the owner or master, and with one exception the defects referred to have been remedied.

Four boats, upon changing owners, were thoroughly repaired and renovated, the change of master being notified to me as required by regulation.

No notification of any infectious disease was received during the year, nor was any boat detained for cleansing or disinfection.

There has been no application for registration during the year, nor am I aware of any new boat passing through the district.

Mr. Llewellyn, the Government Inspector, made his official visit in May, 1904, and his usual examination of the Report Book &c. He also visited the wharves and inspected some of the boats, expressing satisfaction with their general condition. In his Annual Report for 1903-4, which has just been issued, Mr. Llewellyn, after referring to the perfunctory character of the inspections in certain districts, state that " the West of England Authorities, except Bath and Bristol, show much poorer work than elsewhere."

The year's work has been carried out without friction or unpleasantness ; I have never been refused admission to any boat, and the owners and masters have willingly carried out any reasonable requirements.

WALTER A. CRAVEN,
Inspector under the Canal Boats Acts.

Statutory Hospital, 1904.

Patients in Hospital, 1st January, 1904 ... 14

Admitted during the Year.

Urban Diphtheria	56	(9 deaths)
,, Scarlet Fever	24	
,, Doubtful Scarlet Fever ...	2	
,, Measles	1	
Rural Scarlet Fever	19	
,, Rural Diphtheria ...	7	
Total ...	109	

Patients in Hospital 1st January, 1905 ... 14

F. W. KELWAY,
Clerk to Hospital Managing Committee.

Articles Disinfected by Steam during the Year 1904.

Articles.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total. Year.
Mattresses ...	3	2	2	8	15
Beds	10	7	1	16	34
Bolsters ...	8	6	1	28	43
Pillows ...	28	9	3	70	110
Blankets ...	12	16	5	58	91
Sheets ...	17	4	4	47	72
Quilts ...	20	8	2	46	76
Towels ...	5	—	8	12	25
Articles of Clothing	28	72	6	117	223
Miscellaneous ...	33	32	13	107	185
	164	156	45	509	874

Articles disinfected at Statutory Hospital not included.

Dairies, Cowsheds and Milkshops.

Number of registered dairymen and purveyors of milk ...	69
Number of registered cow-keepers	8
Number of purveyors registered during 1904	10
Number of purveyors who discontinued selling during 1904	14
Number of purveyors changing premises	4
Number of premises inspected previous to selling	16

The total number of cow-keepers, dairymen and purveyors of milk now on the register is 73, being 4 less than last year.

The Regulations are still being keenly felt by that undesirable milk purveyor, the general provision dealer, who stores milk in small quantities, 23 having discontinued selling since the regulations have been in force ; these premises, especially the smaller ones, are a source of continual trouble, chiefly with respect to cleanliness, etc , and owing to this class of business frequently changing hands ; fortunately no case of infectious disease has occurred at any of these shops.

The dairies, apart from milkshops, are continually being improved, the owners of 9 or 10 of the larger ones have spent very large sums on special apparatus, decorating and making walls and floors impervious One innovation which I hope will generally be taken up is that of delivering milk in glass jars fitted with an air-tight cover. By the use of these jars milk may be left on doorsteps and window-sills without fear of being tampered with or contaminated ; a sample jar is kept at this office for inspection by persons interested.

The cowsheds and yards have, with one exception, been fairly well kept during the year, owing to the fine weather the sheds have not been in use much, consequently the manure heaps have been less in evidence.

There are about 170 cows now kept in the city, and I am pleased to report the absence of any contagious diseases.

F. W. KELWAY,
A.R.S.I.

February, 1905.

MONTHLY RAINFALL AT VARIOUS STATIONS, 1904.

Observations 9 a.m. daily, at all Stations, 1904.	Central Station, Henrietta Pk. N. Latitude, 51° 23′ 8″ W. Longitude 2° 21′ 14″ 5 in. Gauge. O.D. 67 ft.				Kingswood School. N. Latitude, 51° 23′ 27″ W. Long., 2° 22′ 5″ 5 in. Gauge. O.D. 620 ft.	39, Combe Park. N. Lat. 51° 23′ 30″ W. Long. 2° 23′ 10″ 5 in. Gauge. O.D. 165 ft.	Monkswood. N. Lat. 51° 26′ 19″ W. Long. 2° 21′ 16″ 5 in. Gauge. O.D. 363 ft.	Batheaston. N. Lat. 51° 24′ 53″ W. Long. 2° 19′ 51″ 5 in. Gauge. O.D. 248 ft.	Charlcombe. N. Lat. 51° 23′ 49″ W. Long. 2° 21′ 37″ 8 in. Gauge. O.D. 325 ft.	Statutory Hospital. N. Latitude, 51° 21′ 52″ W. Longitude, 2° 19′ 10″ 5 in. Gauge. O.D. 520 ft.				MEAN 1866 to 1900. Institution Gardens.	Henrietta Park, Estimated Mean 1870 to 1899.
	Rain and Snow Total depth in inches.	Number of Days on which Rain fell.	Greatest fall in 24 hours. Depth.	Date.						Rain and Snow Total depth in inches.	Number of Days on which Rain fell.	Greatest fall in 24 hours. Depth.	Date.		
January ..	3·20	22	·46	13	3·43	2·81	3·17	3·90	2·99	3·33	20	·44	12	2·90	2·52
February ..	3·61	23	·47	10	3·49	3·53	3·92	4·28	3 53	3·95	22	·53	10	2·33	2·12
March ..	1·86	16	·55	4	1·73	1·33	1·66	1·55	1·33	1·71	13	·27	4 & 28	1·97	1·94
April ...	1·80	14	·32	22	1·91	1·62	1·77	2·02	1·76	2·00	14	·42	28	2·03	2·05
May ..	1·97	14	·50	27	2·14	2·29	2·41	2·58	2·10	2·23	16	·54	5	2·03	2·09
June	1·46	8	·46	24	1·56	1·55	1·67	1·91	1·51	1·46	9	·49	27	2·12	2·31
July ..	2·45	12	·59	29	2·52	2·32	3·05	3·39	2·51	3·29	14	·97	1	2·59	2·83
August ..	2·82	14	·59	22	2·70	2·53	3·14	3·22	2·70	2·97	17	·53	26	2·78	2·96
September	1·37	7	·41	12	1·37	1·29	1·32	1 65	1·30	1·53	10	·32	22	2·97	2·89
October ..	·71	10	·22	6	·98	·80	·98	1·00	·79	·95	15	·21	12	3·13	3·22
November	1·81	8	·48	7	1·79	1·78	19·7	2·19	1·91	2·03	12	·44	7	2·93	3·06
December..	1·96	16	·43	6	1·90	2·04	2·23	2·03	2·04	2·24	21	·43	6	3·03	2·76
	25·02	164			25·52	23·89	27·29	29·72	24·49	27·69	183			30·79	30·75

BATH CENTRAL CLIMATIC STATION, HENRIETTA PARK.

SUMMARY OF METEOROLOGICAL OBSERVATIONS FOR THE YEAR 1904.

Estimated Height above Sea Level: Barometer, 84 feet; Thermometers, 70 feet.

1904	BAROMETER.						THERMOMETERS IN STEVENSON SCREEN.										EARTH TEMPERATURES.				Bright Sunshine in hours.
	Mean 9 a.m. corrected to 32°	Absolute Maximum Corrected.	Day of Month.	Absolute Minimum Corrected.	Day of Month.	Range.	Mean Temperature of Air.	Mean of Maximum.	Mean of Minimum.	Absolute Maximum.	Day of Month.	Absolute Minimum.	Day of Month.	Mean of Dry Bulb.	Mean of Wet Bulb.	Relative Humidity.	4 Feet in Gravel. Max.	4 Feet in Gravel. Min.	4 Feet in Gravel. Mean	1 Ft. Mean	
Jan. ...	29·868	30·678	22	29·000	14	1·678	46·0	46·7	34·4	55·0	13	23·2	23	40·3	38·8	87	46·6	43·8	45·0	39·7	37·3
Feb. ...	29·500	30·207	28	28·774	9	1·333	39·9	45·0	34·8	54·0	21	24·5	29	39·4	37·3	83	44·4	43·5	44·0	40·4	56·7
March	29·913	30·445	23	29·291	30	1·154	41·0	48·0	34·4	59·5	9	25·5	12	40·4	38·6	86	44·6	42·8	43·7	41·0	82·2
April	29·883	30·153	26	29·287	13	·866	48·6	55·6	42·2	63·2	18	33·8	17	47·8	45·6	84	48·8	44·8	46·8	48·2	145·0
May ...	29·881	30·124	13	29·454	8	·670	53·5	62·5	45·6	71·0	16	36·2	11	53·3	49·4	74	53·4	49·0	51·1	54·1	143·4
June ..	29·983	30·323	22	29·526	25	·997	56·3	65·3	48·5	74·2	30	41·2	27	58·9	53·0	66	57·8	53·6	56·2	60·2	207·8
July ..	29·946	30·159	18	29·535	26	·624	63·1	72·2	55·1	83·5	10	50·0	9 & 17	64·9	59·6	71	62·0	58·0	60·4	65·0	212·1
Aug. ...	29·944	30·139	28	29·638	22	·501	59·3	68.5	51·2	82·0	3	42·0	21	61·9	56·9	72	62·4	60·8	61·7	6·30	229·8
Sept. ...	29·986	30·200	18	29·557	14	·643	55·1	64·5	46·5	69·5	5 & 7	37·0	30	55·7	52·3	79	61·0	58·6	60·1	58·7	164·0
Oct. ..	30·039	30·415	13	29·561	7	·854	50·8	57·5	44·5	63·4	11	34·0	13	50·3	48·6	88	58·4	55·6	56·8	53·6	81·3
Nov. ...	30·023	30·469	14	29·445	22	1·024	42·4	49·2	35·5	58·1	9	21·1	24 & 25	41·1	39·9	90	55·0	48·8	52·9	46·5	46·0
Dec. ...	29·852	30·531	19	28·843	12	1·688	41·5	46·5	36·1	56·5	16	27·5	22	40·9	39·5	88	48·6	46·8	47·7	42·4	22·2
Means for Year	29·902						49·8	56·8	42·4					49·6	46·6	80·5			52·2	51·1	1427·8